DOVGAL', N.A.

Practice of the geological survey in checking on the conservatio of mineral resources in the Ukraine. Razved. i okh. nedr 27 no.8:27-31 Ag '61. (MIRA 16:7)

1. Glavnoye upravleniye geologii i okhrany nedr pri Sovete Ministrov UkrSSR.

(Ukraine—Mining geology)

BELOZERSKIY, Ya., prepodavatel'; DOVGAL', P., prepodavatel'

"VSSh-1M" tractor. IUn. tekh. 5 no. 12:6-7 D '60. (MIRA 14:1)

1. Velikosorochinskaya srednyaya shkola.
(Velikiye sorochintsy--Agricultural machinery--Models)

DOVGAL', P.Ye.

Treatment of pyorrhea alveolaris with mud applications. Zdravookhranenie 3 no.6:17-18 N-D '60. (MIRA 13:12)

1. Iz stomatologicheskoy polikliniki Bendery (glavnyy vrach S. Mikliyevskiy); nauchnyy rukovoditel' - dotsent V.I. Titarev.
(GUMS--DISEASES) (BATHS, MOOR AND MUD)

DOVGAL', S.A., kandidat ekonomicheskikh nauk.

District heating for medium and small cities in districts where power systems are operating. Trudy LIEI no.16:46-59 '57.
(Heating from central stations) (MLRA 10:8)

KOSTENKO, M.P.; MELENT'YEV, L.A.; KAMENSKIY, M.D.; ZALESSKIY, A.M.; BRIL', R.Ya.; GORSHKOV, A.S.; SAVASHINSKAYA, V.I.; DOVGAL', S.A.; KOVALEV, N.N.; BOLOTOV, V.V.; USOV, S.V.; GERASIMOV, V.N.; SIVAKOV, Ye.R.; AVRUKH, A.Ya.; STARIKOV, V.G.; MIKHALEVICH, A.I.

I.V. Gofman; obituary. Elek. sta. 34 no.6:95 Je '63. (MIRA 16:9)
(Gofman, Igor' Valentinovich, 1903-1963)

BRIL', R.Ya.; DOVGAL', S.A.; DRUZHININ, Ye.P.

Some problems of methodology in selecting different forms of energy for high-temperature industrial processes. Trudy LIEI no.51:135-148 '64. (MIRA 18:11)

MOISEYCHIK, A.N.; DOVGAL', V.I.; AKIMOV, V.V.

Heater for preheating the cooling system liquids of tractor engines. Trakt. i sel'khozmash. 32 no.5:13-15 My '62. (MIRA 15:5)

1. Gosudarstvennyy soyuznyy ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'skiy avtomobil'nyy i institut (for Moiseychik). 2. Onezhskiy traktornyy zavod (for Dovgal', Akimov).
(Tractors--Cold weather operation)

Dovgal', V. N.

DOVGAL', V.N.

Leiorhynchoides -a new subgenus of Brachiopoda from the middle Devonian of the Gornyy Altai. Trudy Gor.-geol.inst.Zap.-Sib.fil. AN SSSR no.13:139-141 '53. (MLRA 8:12)
(Altai Mountains--Brachiopoda, Fossil)

DOVGAL', V.N.

Geology of the Devonian magmatic complex in the region of the Abakan iron ore deposits. Izv. Sib. otd. AN SSSR no.3:31-41 '58. (MIRA 11:8)

1. Zapadno-Sibirskiy filial AN SSSR.
(Abakan region--Rocks, Igneous)

DOVGAL', V.N.

Uzas gabbro-syenite intrusive in the southeastern part of the Kuznetsk Ala-Tau and some of its analogues. Geol. i geofiz. no.3:75-88 '62. (MIRA 15:7)

1. Institut geologii i geofizik[illegible]skogo otdeleniya AN SSSR, Novosibirsk.

(Kuznetsk Ala-Tau—Ga[illegible]tsk Ala-Tau—Syenite)

DOVGAL', V.N.; POLYAKOV, G.V.

First issue of "Materialy po geologii i poleznym iskopaemym Krasnodarskogo kraia." Reviewed by V.N.Dovgal', G.V.Poliakov. Geol. i geofiz. no.3:124-126 '62. (MIRA 15:7)

(Krasnoyarsk Territory—Geology)

DOVGAL', V.N. Cand Geol-Min Sci --(diss) "Devonian magmatic complex of the region of the Abakanskiy iron ore deposit." Tomsk, 1958. 14 pp (Tomsk Order of Labor Red Banner Polytech Inst im S.M.Kirov. Geol -Prospecting Faculty. Chair of Petrography), 100 copies (KL,46-58,139)

DOVGAL', V.N.

Devonian basaltoid igneous complex and its genetic relationship with the Abakan iron deposit. Izv. vys. ucheb. zav.; geol. i razv. 1 no.7:63-75 Jl '58. (MIRA 12:8)

1. Tomskiy politekhnicheskiy institut, Kafedra petrografii.
(Minusinsk Lowland—Petrology)

VOLOKHOV, I.M.; DOVGAL', V.N.; KOSYGIN, Yu.A.; KUZNETSOV, V.A.;
LUCHITSKIY, I.V.; POSPELOV, G.L.; POLYAKOV, G.V.; PINUS, G.V.;
SOBOLEV, V.S.; TROFIMUK, A.A.; SHAKHOV, F.N.

Professor IUrii Alekseevich Kuznetsov, Corresponding Member of the Academy of Sciences of the U.S.S.R.; on his 60th birthday. Geol. i geofiz. no.4:135-140 '63. (MIRA 16:10)

DOVGAL', V.N.; KUZNETSOV, Yu.A.; POLYAKOV, G.V.

Principles of the identification and the division of natural associations of igneous rocks. Geol. i geofiz. no.10:65-73 '64. (MIRA 18:4)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

KHALFIN, S.L.[deceased]; KHALFINA, S.L.; DOVGAL, V.N.; KHALFINA,
N.A.; GREBENNIKOVA, M.M., red.

[Petrology of the Kogtakh gabbro-monzonite-syenite complex
(Kuznetsk Alatau)] Petrologiia kogtakhskogo gabro-montsonit-
sienitovogo kompleksa (Kuznetskii Alatau). Novosibirsk,
Nauka, 1965. 90 p. (MIRA 18:12)

DOVGAL', Yu.M.; [illegible], N.D.

Bibilin Volcano, a new Quaternary volcano in the northeastern part of the Kolyma Valley. Geol.i geofiz. no.6:35-40 '65. (MIRA 18:8)

1. Severo-Vostochnoye geologicheskoye upravleniye, Magadan.

DOVGALENKO, L.

Answering the SOS signal. Mor. flot 24 no.12:24-25 D '64
(MIRA 18:8)

1. Pervyy pomoshchnik kapitana spasatel'nogo buksira "Stremitel'nyy."

S/081/60/000/019/010/012
A006/A001

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 19, p. 546, # 79526

AUTHORS: Melamed, E. A., Dovgalenko, T. B.

15

TITLE: Determining the Total of Sulfur in Rubber by the Method of Wet Combustion

PERIODICAL: V sb.: Metod analiza syr'ya i materialov, primenyayemykh v rezin. prom-sti Moscow

TEXT: The authors refined the method of wet combustion for determining the total amount of S in rubber mixtures. This method is less time and labor consuming than the combined method and yields better reproducible results with a smaller error (+ 2%); wet combustion cannot be applied to determine sulfate S of lithopone; other fillers do not affect the results of analysis; vulcanization of the mixtures does not change the total S content.

O. Belyatskaya

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

BUGLOV, Ye.D.; DOVGALEV, S.I.; ZHURAVAYEV, V.G.

Primary toxicity in acute radiation sickness. Voen.-med.zhur. no.8: 37-41 Ag '59. (MIRA 12:12)

1. Iz Belorusskogo nauchno-issledovatel'skogo instituta perelivaniya krovi i kafedry rentgenologii i radiologii Minskogo meditsinskogo instituta.
(RADIATION INJURY blood)

LAVROVA, L.V.; DOVGALEV, S.I.

Use of a hydrolysate produced by the Central Institute of the Order of Lenin of Hematology and Blood Transfusion in the compound treatment of surgical dixeases. Zdrav. Bel., 9 no.8:68-71 Ag'63 (MIRA 17:3)

1. Iz Belorusskogo nauchno-issledovatel'skog[illegible]stituta pereliv[illegible]rovi (dir. - S.S. Kharamonenko).

DOVGALEV, Yu.

85-58-5-12/38

AUTHOR: Dovgalev, Yu., Aeroclub Unit Chief (Mogilev)

TITLE: Aeroclub Komsomol Members Prepare For Anniversary (Komsomol'tsy aerokluba vstrechayut yubiley)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 5, p 7 (USSR)

ABSTRACT: The author tells how individual Komsomol members of his aeroclub are preparing for the 40th VLKSM anniversary. Personalities mentioned are Zinaida Antonchikova, woman parachutist; Igor' Azarov, parachutist 1st rank, pilot sportsman; pilot L. Vasaravdis; A. Lebedev, L. Mironchik, B. Syrodoyev, and Gertruda Feygina, public instructors; and N.I. Titkov, model-airplane builder.

ASSOCIATION: Mogilevskiy aeroklub (Mogilev Aeroclub)

AVAILABLE: Library of Congress

Card 1/1

1. Aviation - USSR
2. Airplanes - Models
3. Parachute jumping

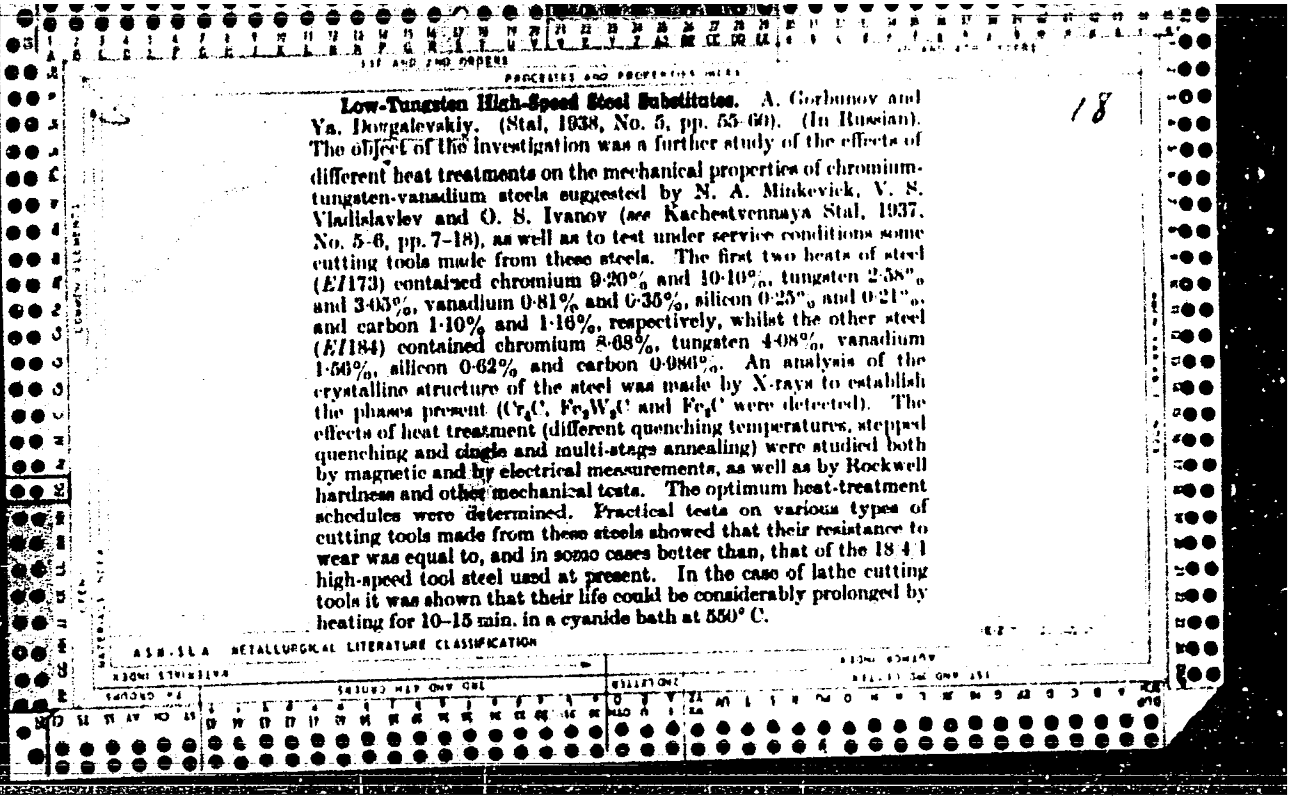
DOVGALEVSKIY, Al'bert Abramovich; KULICHKOV, Anatoliy Grigor'yevich;
KORKHOV, Ya.G., red.

[Reducing the time needed for mastering new techniques; experience acquired by enterprises of the Administration of Ferrous and Nonferrous Metallurgy of the Leningrad Economic Council] Sokrashchenie srokov osvoeniia novoi tekhniki; opyt predpriiatii Upravleniia chernoi i tsvetnoi metallurgii Lensovnarkhoza. Leningrad, 1964. 20 p.
(MIRA 17:11)

DOVGALEVSKIY, A.M., inzhener-konstruktor

Ground rope conveyor of the shutt[illegible]ekst.prom. no.2:74-77 F '63.
(MIRA 16:4)

1. Kiyevskaya khlopchatobumazhnaya fabrika.
(Conveying machinery)



1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

18

Low-Tungsten High-Speed Steel Substitutes. A. Gorbunov and Ya. Dovgalevskiy. (Stal, 1938, No. 5, pp. 55-60). (In Russian). The object of the investigation was a further study of the effects of different heat treatments on the mechanical properties of chromium-tungsten-vanadium steels suggested by N. A. Minkevick, V. S. Vladislavlev and O. S. Ivanov (*see* Kachestvennaya Stal, 1937, No. 5-6, pp. 7-18), as well as to test under service conditions some cutting tools made from these steels. The first two heats of steel (*EI*173) contained chromium 9·20% and 10·10%, tungsten 2·58% and 3·03%, vanadium 0·81% and 0·35%, silicon 0·25% and 0·21%, and carbon 1·10% and 1·16%, respectively, whilst the other steel (*EI*184) contained chromium 8·68%, tungsten 4·08%, vanadium 1·56%, silicon 0·62% and carbon 0·986%. An analysis of the crystalline structure of the steel was made by X-rays to establish the phases present (Cr_4C, Fe_3W_3C and Fe_3C were detected). The effects of heat treatment (different quenching temperatures, stepped quenching and single and multi-stage annealing) were studied both by magnetic and by electrical measurements, as well as by Rockwell hardness and other mechanical tests. The optimum heat-treatment schedules were determined. Practical tests on various types of cutting tools made from these steels showed that their resistance to wear was equal to, and in some cases better than, that of the 18 4 1 high-speed tool steel used at present. In the case of lathe cutting tools it was shown that their life could be considerably prolonged by heating for 10–15 min. in a cyanide bath at 550° C.

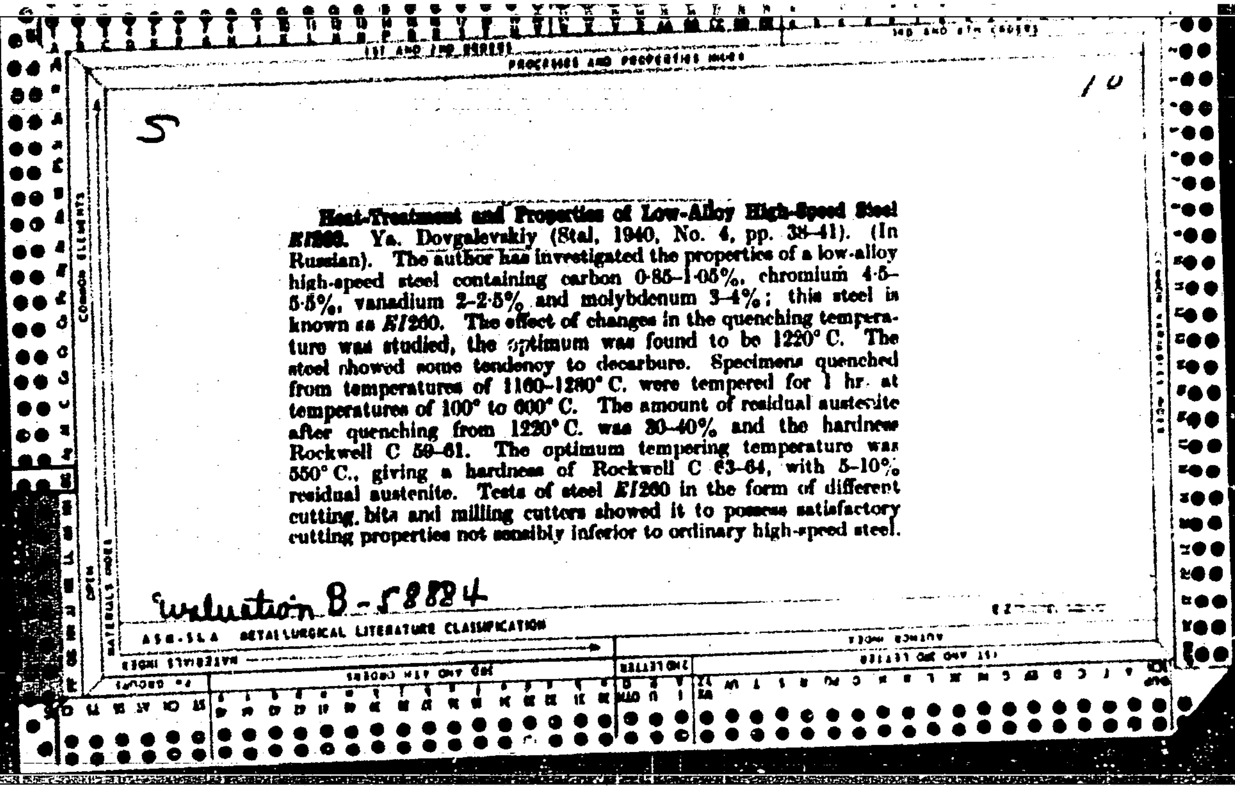
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

5

10

The Stepped Quenching of Low-Tungsten Substitutes for High-Speed Steel. A. Gorbunov and Ya. Dovgalevskiy. (Stal, 1939, No. 6, pp. 47–49). (In Russian). The steels investigated were EI173 (carbon 1·1%, chromium 0·2%, tungsten 2·37%, vanadium 0·81%) and EI184 (carbon 0·80%, silicon 0·53%, chromium 7·11%, tungsten 4·30%, vanadium 1·32%). Most of the experiments were made on the former steel. The fully annealed specimens of this steel were heated at 1200° C. for 5 min., then transferred to a lead bath at a temperature of 550–700° C., held for various periods of from 10 to 180 min. and then cooled in still air. Tests on heat-treated specimens included Rockwell hardness measurements and measurements of the magnetic saturation and the coercive force. Subsequently the effect of repeated tempering (1 hr. periods in a lead bath at 550° C.) on the step-quenched specimens was examined. A study was also made of "tempering" step-quenched specimens at −182° C. followed by ageing at 100° C. It was found that by suitable stepped quenching with subsequent triple tempering it was possible to decompose the residual austenite in these steels almost completely and thereby raise the hardness to Rockwell C 64–65. On ageing at 100° C. the austenite decomposed less completely (although more so than after ordinary quenching and triple tempering). A maximum hardness of about Rockwell C 66 was obtained by quenching from 1200° C. in a bath at 550–600° C., holding for 10–60 min., then tempering in liquid nitrogen and finally ageing at 100° C. for 1 hr.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION


1ST AND 2ND ORDERS
PROCESSES AND PROPERTIES INDEX
3RD AND 4TH ORDERS
COMMON ELEMENTS
MATERIALS INDEX
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

5

10

Heat-Treatment and Properties of Low-Alloy High-Speed Steel *EI*260. Ya. Dovgalevskiy (Stal, 1940, No. 4, pp. 38–41). (In Russian). The author has investigated the properties of a low-alloy high-speed steel containing carbon 0·85–1·05%, chromium 4·5–5·5%, vanadium 2–2·5% and molybdenum 3–4%; this steel is known as *EI*260. The effect of changes in the quenching temperature was studied, the optimum was found to be 1220° C. The steel showed some tendency to decarburo. Specimens quenched from temperatures of 1160–1280° C. were tempered for 1 hr. at temperatures of 100° to 600° C. The amount of residual austenite after quenching from 1220° C. was 30–40% and the hardness Rockwell C 59–61. The optimum tempering temperature was 550° C., giving a hardness of Rockwell C 63–64, with 5–10% residual austenite. Tests of steel *EI*260 in the form of different cutting bits and milling cutters showed it to possess satisfactory cutting properties not sensibly inferior to ordinary high-speed steel.

Evaluation B-58824

DOVGALEVSKIY, YA. M., Engineer

"Thermomagnetic Treatment of High-Coercive Alloys." Sub 16 Oct 47, Moscow Aviation Technological Inst

Dissertations presented for degrees in science and engineering in Moscow in 1947

SO: Sum No. 457, 18 Apr 55

DOVGALEVSKIY, YA. M.

Dovgalevskiy, Ya. M. "Powder metallurgy, (Metal ceramics)", Sbornik sokr. dokladov Srat. gor. nauch.-tekhn. konf-tsii predpriyatiy mashinostroit. i metalloobrabat. prom-sti, Saratov, 1949, p. 73-78.

SO: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 11, 1949).

DOVGALEVSKIY, Ya. M. Aug 52

USSR/ Electricity - Magnets, Permanent

"Apparatus for Heat-Treatment of Permanent Magnets in Magnetic Field," Docent Ya. M. Dovgalevskiy, Cand. Tech. Sci.

"From Energ[illegible] pp 7-8

De[illegible] permanent magnet, made in 2 halves, consisting in all [illegible] 2 cm ling, 13 sq cm [illegible] section) to produce field [illegible] oersted in which small [illegible]nt magnets are heat treated. A[illegible]d at a plant, device saves approx. 1.1 kw-h in manuf. of each rectangular (15 X 30.40 mm) magnet compared with electromagnet method, solves many problems in manuf. of magnets for relays, oscilloscopes, etc.

252T36

DOVGALEVSKIY, Ya. M.

"Conversions During Thermomagnetic Treatment of High-Coercion Alloys," ZHTF, 22, No. 1, pp 121-128, 1952.

DOVGALEVSKIY, Yakov Mironovich; PSHECHENKOVA, G.V., redaktor; GOLYATKINA, A.G., redaktor; ATTOPOVICH, M.K., tekhnicheskiy redaktor

[Alloys for permanent magnets] Splavy dlia postoiannykh magnitov. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi matallurgii, 1954. 157 p. (MLRA 8:3)
(Magnets) (Alloys)

DOVGALEVSKIY, Ya.M.

Casting permanent magnets. Lit-proizv. no.6:7-8 S '54. (MLRA 7:10)
(Magnets)

Cobalt [illegible] nickel aluminum alloys and their [illegible]

DOVGALEVSKIY, YA.M.

AL'TGAUZEN, O.N., kandidat fisiko-matematicheskikh nauk; BERNSHTEYN, M.L., kandidat tekhnicheskikh nauk; BLANTER, M.Ye., doktor tekhnicheskikh nauk; BOK[illegible]EYN, S.Z., doktor tekhnicheskikh nauk; BOLKHOVITINOVA, Ye.N[illegible]idat tekhnicheskikh nauk; BORZDYKA, A.M., doktor tekhnich[illegible]auk; BUNIN, K.P., doktor tekhnicheskikh nauk; VINOGRAD, M.I.[illegible]dat tekhnicheskikh nauk; VOLOVIK, B.Ye., doktor tekhnicheskikh [illegible] [deceased]; GAMOV, M.I., inzhener; GELLER, Yu.A., doktor tekhnicheskikh nauk; GORELIK, S.S., kandidat tekhnicheskikh nauk; GOL'DENBERG, A.A., kandidat tekhnicheskikh nauk; GOTLIB, L.I., kandidat tekhnicheskikh nauk; GRIGOROVICH, V.K., kandidat tekhnicheskikh nauk; GULYAYEV, B.B., doktor tekhnicheskikh nauk; DOVGALEVSKIY, Ya.M., kandidat tekhnicheskikh nauk; DUDOVTSEV, P.A., kandidat tekhnicheskikh nauk; KIDIN, I.N., doktor tekhnicheskikh nauk; KIPNIS, S.Kh., inzhener; KORITSKIY, V.G., kandidat tekhnicheskikh nauk; LANDA, A.F., doktor tekhnicheskikh nauk; LEYKIN, I.M., kandidat tekhnicheskikh nauk; LIVSHITS, L.S., kandidat tekhnicheskikh nauk; L'VOV, M.A., kandidat tekhnicheskikh nauk; MALYSHEV, K.A., kandidat tekhnicheskikh nauk; MEYERSON, G.A., doktor tekhnicheskikh nauk; MINKEVICH, A.N., kandidat tekhnicheskikh nauk; MOROZ, L.S., doktor tekhnicheskikh nauk; NATANSON, A.K., kandidat tekhnicheskikh nauk; NAKHIMOV, A.M., inzhener; NAKHIMOV, D.M., kandidat tekhnicheskikh nauk; POGODIN-ALEKSEYEV, G.I., doktor tekhnicheskikh nauk; POPOVA, N.M., kandidat tekhnicheskikh nauk; POPOV, A.A., kandidat tekhnicheskikh nauk; RAKHSHTADT, A.G., kandidat tekhnicheskikh nauk; ROGEL'BERG, I.L., kandidat tekhnicheskikh nauk;

(Continued on next card)

AL'TGAUZEN, O.N.---- (continued) Card 2.

SADOVSKIY, V.D., doktor tekhnicheskikh nauk; SALTYKOV, S.A., inzhener; SOBOLEV, N.D., kandidat tekhnicheskikh nauk; SOLODIKHIN, A.G., kandidat tekhnicheskikh nauk; UMANSKIY, Ya.S., kandidat tekhnicheskikh nauk; UTEVSKIY, L.M., kandidat tekhnicheskikh nauk; FRIDMAN, Ya.B., doktor tekhnicheskikh nauk; KHIMYSHIN, F.F., kandidat tekhnicheskikh nauk; KHRUSHCHEV, M.M., doktor tekhnicheskikh nauk; CHERNASHKIN, V.G., kandidat tekhnicheskikh nauk; SHAPIRO, M.M., inzhener; SHKOL'NIK, L.M., kandidat tekhnicheskikh nauk; SHRAYBER, D.S., kandidat tekhnicheskikh nauk; SHCHAPOV, N.P., doktor tekhnicheskikh nauk; GUDTSOV , N.T., akademik, redaktor; GORODIN, A.M. redaktor izdatel'stva; VAYNSHTEYN, Ye.B., tekhnicheskiy redaktor

[Physical metallurgy and the heat treatment of steel and iron; a reference book] Metallovedenie i termicheskaia obrabotka stali i chuguna; spravochnik. Pod red. N.T.Gudtsova, M.L.Bernshteina, A.G. Rakhshtadta. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1956. 1204 p. (MLRA 9:9)

1. Chlen -korrespondent Akademii nauk USSR (for Bunin)
(Steel--Heat treatment) (Iron--Heat treatment)
(Physical metallurgy)

DOVGALEVSKIY, YA. M.

Call Nr: TA474.D6

AUTHOR: Dovgalevskiy, Ya.,M.

TITLE: Cast Iron with Special Properties (Chuguny s osobymi svoystvami)

PUB. DATA: Gosudarstvennoye nauchno-tekhnicheskoye izdatel'stvo literatury po chernoy i tsvetnoy metallurgii ; Moscow, 1957, 198 p., 4000 copies

ORIG. AGENCY: None given

EDITOR: Kunyavskiy, M.N., (Deceased); Ed. of Publishing House: Valov, N.A.; Tech. Ed.: Karasev, A.I.

PURPOSE: This book is intended for engineers and technical personnel engaged in the production and utilization of cast iron with special properties. It can also be used by students specializing in metallurgy and machine design on an advanced level.

Card 1/6

[illegible]ll Nr: TA474.06

Cast Iron with Special Properties (cont)

COVERAGE: The author explains the growing importance of cast iron in machine building and the need for improvement in production methods and quality of this metal. The physical and chemical properties of various cast-iron alloys are discussed in detail, and the possibilities of replacing nonferrous metals by cast iron are shown. The author reviews the latest achievements in the production of cast iron, discusses Soviet and foreign papers on this subject, and stresses the importance of further research and greater utilization of cast iron with special properties. The author acknowledges the assistance of Livshits, B.G., Doctor of Technical Sciences, and Kunyavskiy, M.N., (Deceased) Candidate of Technical Sciences. There are 77 references, of which 60 are Soviet, 11 USA, 3 German, 2 British, 1 Italian.

TABLE OF CONTENTS Page

Foreword . 5

Part I. Cast Iron for Electromechanical Equipment

Ch. I. Magnetic Cast Iron . 7

Call Nr: TA474.06

Cast Iron with Special Properties (cont)

Ch. II. Non Magnetic Cast Iron 18
  1. Nickel-manganese cast iron 26
  2. Copper-manganese cast iron 29

Ch. III. Cast Iron with High Electrical Resistance 44
  1. High-chrome (white) iron 47
  2. Austenitic iron 55
  3. Design calculations for and the proper use of cast iron heating elements 58

Part II. Stainless Cast Iron

Ch. I. Corrosion of Cast Iron 61
Ch. II. Low-Alloy Grey Iron 69
  1. Low-alloy grey iron with additions of Cr and Ni 69
  2. Copper grey iron 69
  3. Tin and tin-copper grey iron 71

Card 3/6

Call Nr: TA474.06

Cast Iron with Special Properties (cont)

Ch.III. High-Silicon Cast Iron ("Ferrosilides") [Soviet Designation] 74
  1. Chemical composition and structure 74
  2. Physical and mechanical properties 77
  3. Methods of production 78
  4. Chemical stability and uses of iron silicides 86

Ch. IV. Silicon-Molybdenum Cast Iron (Antichlors) 88

Ch. V. Austenitic Cast Iron 91
  1. Chemical composition and structure 91
  2. Physical and mechanical properties of Niresist 93
  3. Methods of producing Niresist 93
  4. Chemical stability and uses of austenitic cast iron 102

Ch. VI. High-Chrome Cast Iron 104

Ch.VII. Chrome-Nickel Alloy Cast Iron 112

Ch.VIII. Cast Iron for Automobile Cylinder Sleeves 113

Card 4/6

Call Nr: TA474.06

Cast Iron with Special Properties (cont)

Ch. IX. Prevention of Corrosion of Cast-Iron Products by Protective Coating and by Thermochemical Treatment 119
1. Galvanizing 120
2. Tinning 121
3. Nickel and chrome plating 121
4. Nitriding 122
5. Siliciding 123
6. Enameling 124

Part III. Heat-Resistant Cast Iron
Ch. I. Resistance to Scaling and Growth 128
Ch.II. Heat-Resistant Properties 141
Ch.III. Silicon Cast Iron 150
Ch.IV. Aluminum Cast Iron 158
Ch. V. High-Chrome Cast Iron 162
Ch.VI. Austenitic Cast Iron 167
Ch.VII. Nickel-Molybdenum Cast Iron 173

Card 5/6

Call Nr: TA474.06

Cast Iron with Special Properties (cont)

Ch.VIII.	Thermochemical Treatment for Increasing Heat Resistance	176
1.	Calorizing	176
2.	Chromizing	177
3.	Nitriding	178
Appendix I.	Magnetic Properties of Some Types of Cast Iron	181
Appendix II.	Chemical Stability of Cast Iron in Some Highly Corrosive Media	185
BIBLIOGRAPHY		196

AVAILABLE: Library of Congress

Card 6/6

DOVGALEVSKIY, YAKOV MIRONOVICH

N/5
615.45
.D7

Chuguny s osobymi svoystvami (Special Pig Irons) Moskva, Metallurgizdat, 1957.

198 p. illus., diagrs., graphs, tables.
"Literatura": p. 196-198.

615.45 N/5
733.2 N/5

MEA

AUTHOR: Dovgalevskiy, Ya. M. SOV/163-58-3-9/49

TITLE: The Influence of Sulfur and Titanium on the Properties of the **ALNIKO** Alloy (Vliyaniye sery i titana na svoystva splava **ALNIKO**)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 19[illegible] Nr 3, pp 53 - 57 (USSR)

ABSTRACT: The influence of [illegible] additions of sulfur a[illegible]anium on the strength and [illegible] brittleness of the **ALNIKO**-type alloy was investigated. [illegible] structure of the alloy mentioned above [illegible]s character and consists of two phases [illegible]ch represents a solid solution of nickel [illegible]luminum (as well as of cobalt and copper) in α[illegible]nd the β_2-phase, which represents a solid sol[illegible]he basis of NiAl. The alloy **ALNIKO** 18 with 18% [illegible], 10% Al, 3% Cu and the rest being iron, was [illegible]ed. To bring about the state of equilibrium the samples were heated to 950°C and maintained at this temperature for 10 hours, then they were slowly cooled in the furnace. For thermomagnetic treatment the samples

Card 1/3

The Influence of Sulfur and Titanium on the Properties of the ALNIKO Alloy SOV/163-58-3-9/49

were heated to 1300°C and maintained at this temperature for 10 minutes, then they were cooled at a rate of 3-5°/sec in the magnetic field with a field strength of 1500 Oersted. The influence of some elements on the strength of the alloy ANKoZ was investigated, e.g. of titanium, niobium, tantalum, beryllium, sulfur and lead. The influence of sulfur and titanium was investigated in detail. By investigating the microstructure the change in the properties of the alloy was traced. At 0,3% of sulfur the structure of the alloy is a uniform solid solution. This alloy is characterized by better magnetic properties and a greater strength. At 0,6% of sulfur the structure of the alloy shows the formation of a second phase and the magnetic properties decrease. The second phase covers about 30%. The occurrence of the second phase causes a deterioration of the magnetic properties and a considerable decrease of the strength. The optimum conditions in producing ALNIKO alloy are those at 0,3% of sulfur. Titanides are formed under the addition of titanium. The strength of the alloy increases with an increase of the titanium

Card 2/3

The Influence of Sulfur and Titanium on the Properties of the ALNIKO Alloy SOV/163-58-3-9/49

content, whereas on a further increase of the titanium content it decreases. The alloys are brittle when the titanium content is higher. The titanium content in the alloys should not be higher than 0,9%. The influence of copper on the strength and on the magnetic properties of the alloys was investigated. Based on the results obtained a new alloy ANKoZA of the following chemical composition was suggested: 18% Co, 19% Ni, 10% Al, 2% Cu, 0,3% S, 0,9% Ti the rest being iron. This alloy has a greater strength than the alloy ANKoZ. There are 4 figures and 3 references, which are Soviet.

ASSOCIATION: Saratovskiy avtomobil'no-dorozhnyy institut (Saratov Highway Institute)

SUBMITTED: November 30, 1957

Card 3/3

BERG, P.P., doktor tekhn.nauk; BIDULYA, P.N., doktor tekhn.nauk; GRECHIN, V.P., kand.tekhn.nauk; DOVGALEVSKIY, Ya.M., kand.tekhn.nauk; ZHUKOV, A.A., inzh.; ZINOV'YEV, N.V., inzh.; KRYLOV, V.I., inzh.; KUDRYAVTSEV, I.V., doktor tekhn.nauk; LANDA, A.F., doktor tekhn. nauk; LEVI, L.I., kand.tekhn.nauk; MALAKHOVSKIY, G.V., inzh.; MIL'MAN, B.S., kand.tekhn.nauk; SOBOLEV, B.F., kand.tekhn.nauk [deceased]; SKOMOROKHOV, S.A., kand.tekhn.nauk; STEPIN, P.I., kand.tekhn.nauk; USHAKOV, A.D., kand.tekhn.nauk; FRIDMAN, L.M., inzh.; KHRAPKOVSKIY, E.Ya., inzh.; TSYPIN, I.O., kand.tekhn.nauk; SHKOL'NIKOV, E.M., kand.tekhn.nauk; POGODIN-ALEKSEYEV, G.I., prof., doktor tekhn.nauk, red.; BOLKHOVITINOV, N.F., prof., doktor tekhn. nauk, red.toma; LANDA, A.F., prof., doktor tekhn.nauk, red.toma; RYBAKOVA, V.I., inzh., red.izd-va; SOKOLOVA, T.F., tekhn.red.

[Handbook on materials used in the machinery industry] Spravochnik po mashinostroitel'nym materialam; v chetyrekh tomakh. Pod red. G.I.Pogodina-Alekseeva. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry. Vol.3. [Cast iron] Chugun. Red.toma N.F.Bolkhovitov i A.F.Landa. 1959. 359 p. (MIRA 13:1)
(Machinery industry) (Cast iron)

18.1142

67284

SOV/180-59-4-16/48

AUTHORS: Dovgalevskiy, Ya.M. and Sokolovskiy, Ye.I. (Saratov)

TITLE: Properties and Treatment of Alnico-type Alloys

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1959, Nr 4, pp 99-105 (USSR)

ABSTRACT: The influence of various alloying additions and thermal treatments on the mechanical and magnetic properties and structures of alloy ANKO3 (iron-nickel-aluminium-cobalt) was studied. The addition of sulphur refines the grain of the alloy somewhat and 0.9% Ti is a very good grain refiner. The microstructure of ANKO3 is shown in Fig 1. With the addition of 0.3% S (Fig 2), the second phase disappears and only sulphur inclusions are present in the structure. 0.9% Ti (Fig 3) results in a fine grained structure with a light coloured constituent. The alloy with 1.7% Ti (Fig 4) contains hard and brittle inclusions. Fig 5 shows an alloy containing 0.3% S and 0.9% Ti. There is a light coloured acicular constituent. Fig 6 shows the strength of various alloys. Sulphur increases the strength. Alloys containing 0.9% Ti (Nr 6) and 0.9% Ti + 0.3% S (Nr 5) are also strong. An alloy containing Nb (Nr 7) and Nb + S (Nr 11) have good properties. Additions of Ta and Pb are unfavourable. An

Card 1/2

4

67284

SOV/180-59-4-16/48

Properties and Treatment of Alnico Type Alloys

alloy containing Be (Nr 12) is good. Fig 6 and 7 show that a quench treatment increases the strength of these alloys. Tempering leads to a further increase. The optimum strength and the optimum magnetic properties are shown by alloys containing 0.9% Ti (Fig 8) and 0.3% S (Fig 9). On the basis of the above investigations a new alloy has been developed containing 18% Co, 10% Al, 19% Ni, 2% Cu, 0.9% Ti, 0.3% S. It has similar magnetic properties to ANKO3 but higher strength. This alloy has gone into production. There are 10 figures, 1 table and 2 references, 1 of which is Soviet and 1 English.

4

SUBMITTED: April 1, 1959

Card 2/2

DOVGALEVSKIY, Ya.M., dots., kand. tekhn. nauk

[Lectures on the course "Physical metallurgy and heat treatment of metals"] Lektsii po kursu "Metallovedenie i termicheskaia obrabotka." Saratov, Saratovskii politekhn. in-t. Pts.1-2. 1961. 351 p. (MIRA 17:4)

33170

S/148/61/000/011/015/018
E040/E180

18.1142

AUTHORS: Dovgalevskiy, Ya.M., and Povolotskiy, Ye.G.

TITLE: High temperature segregation in Alnico (Magnico) type alloys

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya metallurgiya, no.11, 1961, 170-175

TEXT: Preliminary tests showed that slow cooling of Alnico alloys (Fe-Ni-Al-Co) of high coercive force through the 1300-900 $^{\circ}$C temperature range causes a noticeable deterioration in the magnetic properties. In order to explain t[illegible]nomenon, determinations were made of the magnetic inductio[illegible] and coercive force (Br) of specimens of [illegible]3, Anco-4, non-standard Alnico alloy (27% Co), and a cobalt-free AH-2 (AN-2) alloy (26.90% Ni, 12.10 Al, 3.76 Cu, 0.01 C, 0.07 Si, 0.011 S, remaindor Fe). 50 kg batches of the test alloys were melted in a high-frequency furnace and 27 x 7 x 7 mm test specimens prepared from 50 x 30 x 30 mm castings previously subjected to heat treatment 1300 $^{\circ}$C) and ground on all sides. Micrographic examination

33170

High temperature segregation ... S/148/61/000/011/015/018
E040/E180

was made of specimens etched with 5% alcoholic solution of HNO_3 and 15% aqueous solution of HNO_3. The segregated phase was separated by anodic dissolution using an electrolyte consisting of 5% HCl and a complexing agent (nature not stated) at a low current density (50 mA/cm^2). This electrolyte was found to be the most selective with regard to the various phases present in the specimens. The deposit of the unknown phases thus obtained was then subjected to X-ray structural analysis using $Co_{K\alpha}$ and $Fe_{K\alpha}$ radiations. Before testing, the specimens were homogenised at 1300 °C, held isothermally at various temperatures in the range 1250-800 °C, and oil-quenched. It was found that a structural breakdown occurs in Alnico alloys in the temperature interval of 1200-900 °C and results in the segregation of a face-centred cubic phase with crystal lattice parameter $a = 10.2 Å$ from the starting solid solution. The segregation goes on even at temperatures below 900 °C, but the rate of the segregation then drops to such an extent that the process is masked by the $\beta_2 \rightarrow \beta + \beta_2$ transformation. The new phase formed during the segregation is enriched in Co and Fe, its hardness is lower than

X

Card 2/4

33170

High temperature segregation ... S/148/61/000/011/015/018
E040/E180

that of the matrix and it is deposited mainly in sections of axes of dendrites, grain boundaries and substructure. The high-temperature segregation is shown clearly only in cobalt-containing alloys and the presence of the new phase can be detected visually by a change of fractured surfaces from the usually bright appearance to a dull one. Under plant conditions, the dull appearance of the fractured surface is caused by slow cooling or by a high-temperature thermal treatment of the magnets (1200-900 °C). In the case of Anco-3 alloys, the formation of this new phase can be prevented by ensuring that the cooling rate does not drop below 50 °C/min. Although the segregation of the new phase leads invariably to a deterioration in magnetic properties, the original magnetic properties are restored by repeating the homogenisation treatment.

There are 4 figures, 1 table and 3 references: 2 Soviet-bloc and 1 non-Soviet-bloc. The English language reference reads:
Ref.2: R.D. Heidenreich, E.A. Nesbitt.
Journal of Applied Physics, v.23, no.3, 1952.

Card 3/4

33170

High temperature segregation ... S/148/61/000/011/015/018
E040/E180

X

ASSOCIATION: Saratovskiy politekhnicheskiy institut
(Saratov Polytechnical Institute)

SUBMITTED: December 10, 1960

Card 4/4

DOVGALEVSKIY, Yakov Mironovich, kand. tekhn. nauk; SIDORENKO, M., red.; LUKASHEVICH, V., tekhn. red.

[Handbook of a heat-treatment specialist] Spravochnik termista. Saratov, Saratovskoe knizhnoe izd-vo, 1962. 417 p. (MIRA 15:9)

(Metals--Heat treatment)

DOVGALEVSKIY, Ya.M.; POVOLOTSKIY, Ye.G.; MIKHEYEV, N.I.

Methods for exposing the macro- and microstructure in alni- and alnico-type alloys. Zav.lab. 28 no.3:311-312 '62. (MIRA 15:4)

1. Saratovskiy politekhnicheskiy institut.
(Aluminum alloys--Metalligraphy)

34323

S/032/62/028/003/010/01[illegible]
B102/B138

12.1142

AUTHORS: Dovgalevskiy, Ya. M., Povolot[illegible], Ye. G., an[illegible]ikhey[illegible] N. L.

TITLE: Method of revealing the macro[illegible]d microstruc[illegible]e [illegible] Alni
and Alnico alloys

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 3, 1962, 311 - 312

TEXT: The magnetic properties of Alni and Alnico alloys, which are used for permanent magnets, depend on their macro- and microscopic structures. A chemical method of revealing these structures has been developed and a method of determining grain orientation is described. The alloys АН2 (An2), Анко 3 (Anko 3) and Анко4 (Anko 4) were used as specimens and the following compositions as etching agents:

No. 1: 100 ml HCl + 10 ml HNO_3 + 25 g $K_2Cr_2O_7$ + 100 ml H_2O

No. 2: 75 ml HCl + 25 ml HNO_3

No. 3: 15 ml HNO_3 + 8[illegible] ml H_2O

No. 4: 5 ml HNO_3 + [illegible] ml ethyl alcohol

Card 1/2

DOVGALEVSKIY, Ya.M., kand.tekhn.nauk; POVOLOTSKIY, Ye.G., inzh.

Reduction of the magnetic properties of "Magnico" alloys in presence of "dull" fractures. Metalloved. i term. obr. met. no.6:14-17 Je '62. (MIRA 15:7)

1. Saratovskiy politekhnicheskiy institut.
(Iron-nickel-cobalt alloys--Magnetic properties)

DOVGALEVSKIY, Ya.M.

"Tool steels" by IU.A.Geller. Reviewed by IA.M.Dovgalevskii.
Stan.i instr. 33 no.8:42-43 Ag '62.
(Tool steel) (Geller, IU.A.) (MIRA 15:8)

POVOLOTSKIY, Ye.G.; DOVGALEVSKIY, Ya.M.; BAYTINA, V.K.

Effectiveness of a magnetic field in the thermomagnetic treatment of Alnico-type alloys. Metalloved. i term. obr. met. no.11: 10-14 N '63. (MIRA 16:11)

1. Saratovskiy politekhricheskiy institut.

POVOLOTSKIY, Ye.G.; DOVGALEVSKIY, Ya.M.; BAYTINA, V.K.

Rate of cooling of "magnico" alloys. Izv.vys.ucheb.zav.; chern. met. 6 no.1:120-124 '63. (MIRA 16:2)

1. Saratovskiy politekhnicheskiy institut.
(Iron-nickel-cobalt alloys—Magnetic properties)

DOVGALEVSKIY, Ya.M., kand. tekhn. nauk; KAZARNOVSKIY, L.Sh., kand. tekhn. nauk, retsenzent

[Cast magnets from magnesium-nickel-cobalt alloys] Litye magnity iz splavov magniko. Moskva, Mashinostroenie, 1964. 149 p. (MIRA 17:8) [illegible] heat treatment [illegible]

the alloy is [illegible] 1200° or up to 850-900°, at [illegible] up to [illegible] a single phase [illegible]

ACCESSION NR: AR5015187

Pa-4/Pt-10/Pu-4/Pad IJP(c) JD/WW/HW/JG EWA(d)/EPR/EWP(t)/EPA(bb)-2/EWP(b)

TOPIC TAGS: magnico alloy, alnico alloy, carbon content, alloy magnetic property, residual induction, coercive force, maximal magnetic

L 19842-65

ASSOCIATION: Saratovskiy politekhnicheskiy institut (Saratov Polytechnical Institute)

NO REF SOV: 003 OTHER: 003

L 34061-65 EPA(s)-2/EWA(c)/EWT(m)/EPA(bb)-2/ [illegible]

[illegible] phenomogeni [illegible] and the [illegible] ce-

[illegible]

[illegible] planes (110) of the [illegible] alternate

[illegible] identical to that of the [illegible] The

[illegible]

L 34056-65 EPR/EPA(s)-2/[illegible]

L 34056-65

L 11636-66 EWT(m)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c) IJP(c) JD/HW

ACC NR: AR5018395 UR/0196/65/000/005/B002/B002

621.318.2

76

B

SOURCE: Ref. zh. Elektrotekhnika i energetika, Abs. 6B7

AUTHOR: Dovgalevskiy, Ya.M.; Povolotskiy, Ye.G.; Baytina, V.K.

44,55 44,55 44,55

TITLE: Mechanism of thermomagnetic processing of Magniko type alloys 18,44,55

44,55 18

CITED SOURCE: Sb. dokl. na Vses. soveshchanii po litym splavam dlya postoyan. magnitov, 1962. Saratov, 1964, 17-27

44,56

TOPIC TAGS: alloy, magnesium alloy, aluminum alloy, cobalt alloy, copper alloy, magnetic metal, magnetic field, thermomagnetic effect

21 21 21 21 21

TRANSLATION: A study of alloys of the Fe-Ni-Al-Co-Cu system has shown that magnetic texture (MT) is created in a series of alloys by magnetic field superposition in a narrow interval of 800-700°C, corresponding with the start of a 2-phase $\beta_2 \to \beta + \beta_2$ - disintegration. During this process there occurs a temperature hysteresis in the formation and disappearance of MT, which reflects the hysteresis of the phase transformation. It is shown that the state of single-phase θ alloys does not necessarily determine the possibility of MT formation. The alloys are susceptible to thermomagnetic processes only when the secreting β-phase immediately becomes ferromagnetic. During the thermomagnetic processing with a continuous cooling in the magnetic field,

Card 1/2

2

L 11636-66

ACC NR: AR5018395

MT is formed in the initial moment of disintegration. A further isometric soaking or a slow cooling without a field help to form MT and to increase H_c without altering B_r. It is shown that MT remains stable during the second annealing and will disintegrate completely only at temperatures over 850°C. 4 figures, 1 table, and 4 references.

SUB CODE: 11

Card 2/2

L 38470-66 EWT(m)/EWP(w)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6019502 SOURCE CODE: UR/0129/66/000/006/0033/0036

AUTHOR: Mikheyev, N. I.; Dovgalevskiy, Ya. M.; Povolotskiy, Ye. G. 78 76

ORG: Saratovsk Polytechnic Institute (Saratovskiy politekhnicheskiy institut) B

TITLE: Effect of carbon in Magnico alloys

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 6, 1966, 33-36

TOPIC TAGS: high alloy steel, carbon, thermal decomposition, magnetic property, magnetic alloy

ABSTRACT: Studies were made of alloys containing 0.20 to 0.2% carbon, with a basic chemical composition corresponding to alloy ANKO-4 (GOST 4402-48). The investigation was carried out by a comparison of microstructural and magnetometric analyses. To determine the structural states of the alloy, the method of isothermal quenching from different temperatures was used. A study was made of the effect of carbon on high temperature $\beta_2 \rightarrow \alpha + \beta_2$-decomposition (the temperature region above 850°C) and of low temperature dispersive $\beta_2 \rightarrow \beta + \beta_2$-decomposition (below 850°C), leading to a high state of coercivity. Experimental results are shown in graphic form. Overall conclusions are as follows:

Card 1/2 UDC: 669.14.018.58

L 38470-66

2

ACC NR: AP6019502

Carbon in Magnico alloys promotes the development of the $\beta_2 \rightarrow \alpha + \beta_2$ decomposition, which has a negative effect on the magnetic properties of the alloy. The Magnico alloys can be characterized by their temperability, that is, by the diameter of a cylindrical magnet which, after hardening, is characterized by the absence of the $\beta_2 \rightarrow \alpha + \beta_2$-decomposition. The temperability of Magnico alloys increases with a decrease in the carbon content. In magnets of small cross section, good magnetic properties can be obtained with a carbon content up to 0.05%. Orig. art. has: 5 figures.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 003

Card 2/2 PB

L 10443-67 EWP(e)/EWT(m)/EWP(t)/ETI IJP(c) JD/HW/JH

SOURCE CODE: UR/0126/66/021/004/0628/0630

40

ACC NR: AP6023706

AUTHOR: Dovgalevskiy, Ya. M.

ORG: Saratov Polytechnic Institute (Saratovskiy politekhnicheskiy institut)

TITLE: Causes for the deterioration of the magnetic properties of ticonal alloy after high-temperature decomposition

SOURCE: Fizika metallov i metallovedeniye, v. 21, no. 4, 1966, 628-630

TOPIC TAGS: magnetic alloy, nickel alloy, cobalt alloy, aluminum alloy, alloy / YuNDK35T5 alloy

ABSTRACT: The composition and fine structure of the βo - phase of ticonal alloy (YuNDK35T5) were investigated. This investigation supplements the results of A. J. J. Koch, M. G. v. d. Steeg, and K. J. de Vos (Boston Conf. Proc. AIEE, 1957, p. 173). The investigation was prompted by the suspicion that the deterioration of the magnetic properties of ticonal alloys after exposure to high temperatures was due to the formation of the βo-phase in the alloys. The microstructure and chemical composition of the alloy were determined as a function of the period and temperature of annealing, and the experimental results are presented in graphs and tables (see Fig. 1). It was found that the lowered magnetic characteristics resulting from heating at high temperatures may be restored by heating to the single phase β2 temperature,

UDC: 538.245/248

ACC NR: AP7005396 SOURCE CODE: UR/0148/67/000/001/0138/0141

AUTHOR: Dovgalevskiy, Ya. M.; Mikheyev, N. I.; Povolotsk[illegible], Ye. G.

ORG: Saratov Polytechnical Institute (Saratovskiy politekhnicheskiy institut)

TITLE: Effect of aluminum on the structure and properties of alloys of the Magnico type

SOURCE: IVUZ. Chernaya metallurgiya, no. 1, 1967, 138-141

TOPIC TAGS: magnetic alloy, aluminum containing alloy, magnetic property

ABSTRACT: The authors study the effect of aluminum on the structure and properties of anisotropic Magnico alloys. The alloys studied were smelted with an aluminum concentration of 6.2-9.5% in the charge corresponding in other components to the composition of Anko-4 alloy (GOST 4402-48). Metallographic and magnetometric methods were used in the analysis. The coercive force was taken as the criterion for determining structural changes. A U-541 installation was used for measuring the residual induction, coercive force and demagnetization curves by the ballistic method. The Curie points of the alloys were determined from the effect of temperature on their magnetic permeability. Definite structural states of the alloys were fixed by isothermal quenching from various temperatures. The process of $\beta_2 \to \alpha+\beta_2$ decay takes place in the 870-1280°C range with an incubation period which decreases with a reduction in aluminum concentration.

Card 1/2

UDC: 669.018.5:620.183

ACC NR: AP7005396

The temperature corresponding to minimum incubation for $\beta_2 \rightarrow \alpha + \beta_2$ decay rises with a reduction in aluminum concentration in the alloy. There is also an expansion in the temperature region for development of this decay process as aluminum concentration decreases. Thus the temperature to which Magnico alloys are heated before quenching should be selected with regard to aluminum concentration. Aluminum concentration should also be taken into account in calculating the critical cooling rate in the upper temperature interval (1300-850°C) during heat treatment. The time necessary for reaching the maximum degree of decay decreases extremely rapidly with a reduc[illegible] in aluminum concentration. For instance, an alloy with 9.5% Al requires 10-12 hours for completion of the decay process while the corresponding figure for an alloy with [illegible].5% Al is 10-12 minutes. The overall level of coercive force increases with a reduction of aluminum in the alloys. The results of these studies show that aluminum has a strong effect on high-temperature conversion in Magnico alloys which is detrimental to their magnetic properties. The effect of aluminum concentration on the properties of the alloys is revealed most clearly in the shape of hysteresis curves and the magnitude of maximum magnetic energy. Specimens subjected to magnetic heat treatment with subsequent annealing under optimum conditions show maximum magnetic energy with 8.5% aluminum concentration. An increase or reduction in this concentration is detrimental to the magnetic properties of the alloy. Orig. art. has: 5 figures.

SUB CODE: 11/ SUBM DATE: 13Jul65/ ORIG REF: 03/ OTH REF: 02

Card 2/2

DOVGALYUK, B.P.

Automatic control and regulation of thermal conditions in a blast furnace. Metal. i gornorud. prom. no.6:13-16 N-D '63.

(MIRA 18:1)

DOVGALYUK, B.P.

Factors having an effect on heat conditions in a blast furnace. Met. i gornorud. prom. no.6:3-5 N-D '65.
(MIRA 18:12)

SOURCE CODE: UR/0362/66/002/009/0997/0999

AUTHOR: Beritashvili, B. Sh; Dovgalyuk, Yu. A.

ORG: Main Geophysical Observatory (Glavnaya geofizicheskaya observatoriya)

TITLE: Influence of the heat of phase changes on the rate of diffusion processes in drop clouds

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 9, 1966, 997-999

TOPIC TAGS: atmospheric diffusion, atmospheric cloud, atmospheric density

ABSTRACT: The condensation growth of individual drops in clouds has been investigated in many studies, but in deriving the computation formulas it has been assumed that in the term containing the correction for curvature, the temperature of a droplet is equal to the temperature of the surrounding medium. The purpose of this paper is to derive a refined expression for the rate of condensation growth of a drop, obtaining in explicit form the dependence of the course of this process on the change of its temperature, caused by the release of the latent heat of condensation, and determination of the total condensation increment of the mass of the population of cloud droplets described by the formula of the Khrgian-Mazin distribution. Neglecting the thermal and diffuse interaction of cloud particles, due to their smallness in comparison with the distances between them, for the total increment of the mass of droplets in poly-

Card 1/2

UDC: 551.574.1

0927083

ACC NR: AP7006055

disperse clouds it is possible to write

$$\frac{dW}{dt} = n\int_0^\infty \eta(r)\frac{dm}{dt}\,dr,$$

where W is the mass of droplets in 1 g of cloud air; n is the total quantity of droplets in 1 g of cloud air; $\eta(r)$ is the relative quantity of droplets with the radius r present in 1 g of cloud air. Using the Khrgian-Mazin function as the cloud droplet size distribution function

$$\eta(r) = \frac{1}{n\rho'}ar^2e^{-br},\quad a = 1.45W/\rho\bar{r}^6,\quad b = 3/\bar{r}$$

where ρ' is air density, $\bar{r}$ is the mean arithmetical radius of the droplets, and taking into account that for condensation nuclei in most cases $M' \leqslant 10^{-13}$ g and $\omega M'/r^3 \ll 1$ with $r \geqslant 1$ μ m, the first of these expressions can be integrated and used for determining the actual condensation growth of the mass of the population of cloud droplets under the condition that the process occurs in the already forming drop-size spectrum and the number of the drops remains constant in the considered volume of cloud air. Orig. art. has: 1 figure and 9 formulas. [JPRS]

SUB CODE: 04

Card 2/2

VASIL'CHENKO, I.V.; VORONTSOV, P.A.; DOVGALYUK, Yu.S.; MASLOV, S.I.

Methodology and apparatus for studying the boundary layer of the atmosphere from ships. Trudy GGO no.135:120-128 '62. (MIRA 15:8)

(Atmosphere) (Meteorological instruments)

ACCESSION NR: AT4033572 S/2922/63/009/000/0284/0286

AUTHOR: Vasil'chenko, I. V.; Vorontsov, P. A.; Dovgalyuk, Yu. S.; Maslov, S. I.

TITLE: Problems in the method of studying the lower layer of the atmosphere from ships

SOURCE: Vsesoyuznoye nauchnoye meteorologicheskoye soveshchaniye. 1st, Leningrad. 1961. Pribory* i metody* nablyudeniy (Instruments and methods of observation); trudy* soveshchaniya, v. 9. Leningrad, Gidrometeoizdat, 1[illegible]3, 284-286

TOPIC TAGS: meteorology, aerology; atm[illegible]eric [illegible]ndary layer, meteorological instrument, meteorological observation

ABSTRACT: The problems of making systematic observations of the structure of the boundary layer of the atmosphere over the ocean surface are discussed. The Glavnaya geofizicheskaya observatoriya (Main Geophysical Observatory) made such studies in the summer of 1960 by balloon and helicopter ascents from two research vessels in the Atlantic. The difficulties involved in using helicopters are described; the helicopter took off from an 8 X 8 m pad on the prow of an 8,000-ton vessel. The standard KA-15 helicopter was equipped with the helicopter electro-meteorograph developed by the Tsentral'naya aerologicheskaya observatoriya

Card 1/2

ACCESSION NR: AT4033572

(Central Aerological Observatory); a meteorograph with mechanical recording was carried for comparative purposes. Temperature, pressure, temperature fluctuations and humidity were recorded. Fifty such flights indicated that the Central Aerological Observatory instrument is satisfactory and easy to use. The vessel has a distorting influence on the measurements of air temperature and humidity; a special helicopter flight program is described which eliminates these distortions. A MAZ-1 captive balloon was used in observations from a 1,200-ton vessel. The balloon meteorograph developed by the Main Geophysical Observatory was suspended to the cable of the helium-filled envelope. The balloon-launching method is essentially the same as used on land; the balloon was permitted to assume the following levels: 25, 50, 100, 150, 200, 300, 400, 300 and 700 meters, being held at each level for 3 to 5 minutes. Problems involved in the use of meteorological balloons aboard ships are discussed briefly.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya (Main Geophysical Observatory)

SUBMITTED: 00 DATE ACQ: 16Apr64 ENCL: 00

SUB CODE: ES NO REF SOV: 003 OTHER: 000

Card 2/2

DOVGALYUK, Yu.S.; MYUKHKYURYA, V.I.; TYUL'KOV, G.A.

Radiometeorograph operated on a helicopter. Trudy GGO no.140: 65-70 '63.

(MIRA 16:12)

DOVGAN', Leontiy Ivanovich; BORISOVSKAYA, M.A., red.

[Growth rates of the two sectors of national production] O tempakh rosta dvukh podrazdelenii obshchestvennogo proizvodstva. Moskva, Ekonomika, 1965. 78 p. (MIRA 18:8)

STRYGIN, A.I.; DOVGAN', M.N.

Granitization of metabasites and rocks of the lower series in the Ingulets region of the Krivoy Rog Basin. Izv.AN SSSR.Ser.geol. 26 no.6:68-78 Je '61. (MIRA 14:6)

1. Institut geologicheskikh nauk AN USSR, Kiyev.
(Krivoy Rog Basin--Granitization)

BELEVTSEV, Ya.N.; FOMENKO, V.Yu.; NOTAROV, V.D.; MOLYAVKO,G.I.;MEL'NIK,
Yu.P.; SIROSHTAN, R.I.; DOVGAN', M.N.; CHERNOVSKIY, M.I.;
SHCHERBAKOVA, K.F.; ZAGORUYKO, L.G.; GOROSHNIKOV, B.I.;
AKIMENKO, N.M.; SEMERGEYEVA, Ye.A.; KUCHER, V.N.; TAKHTUYEV,
G.V.; KALYAYEV, G.I.; ZARUBA, V.M.; NAZAROV, P.P.; MAKSIMOVICH,
V.L.; STRUYEVA, G.M.; KARSHENBAUM, A.P.; SKARZHINSKAYA, T.A.;
CHEREDNICHENKO, A.I.; GERSHOYG, Yu.G.; PITADE, A.A.; RADUTSKAYA,
P.D.; ZHILKINSKIY, S.I.; KAZAK, V.M.; KACHAN, V.G.; STRYGIN,
A.I., red.; LADIYEVA, V.D., red.; ZHUKOV, G.V., red.; YEPATKO,
Yu.M., red.; SHCHERBAKOV, B.D., red.; SLENZAK, O.I., red.izd-va;
RAKHLINA, N.P., tekhn. red.

[Geology of Krivoy Rog iron-ore deposits]Geologiia Krivorozhskikh zhelezorudnykh mestorozhdenii. Kiev, Izd-vo Akad. nauk USSR. Vol.1.[General problems in the geology of the Krivoy Rog Basin. Geology and iron ores of the deposits of the "Ingulets," Rakhmanovo, and Il'ich Mines]Obshchie voprosy geologii Krivbassa. Geologicheskoe stroenie i zheleznye rudy mestorozhdenii rudnikov "Ingulets," Rakhmanovskogo i im. Il'icha. 1962. 479 p.
(Krivoy Rog Basin—Mining geology) (MIRA 16:3)
(Krivoy Rog Basin--Iron ores)

BELEVTSEV, Ya.N.; FOMENKO, V.Yu.; NOTAROV, V.D.; MOLYAVKO, G.I.;
MEL'NIK, Yu.P.; SIROSHTAN, R.I.; DOVGAN', M.N.; CHERNOVSKIY,
M.I.; SHCHERBAKOVA, K.F.; ZAGORUYKO, L.G.; GOROSHNIKOV, B.I.;
AKIMENKO, N.M.; SEMERGEYEVA, Ye.A.; KUCHER, V.N.; TAKHTUYEV, G.V.;
KALYAYEV, G.I.; ZARUBA, V.M.; NAZAROV, P.P.; MAKSIMOVICH, V.L.;
STRUYEVA, G.M.; KARSHENBAUM, A.P.; SKARZHINSKAYA, T.A.;
CHEREDNICHENKO, A.I.; GERSHOYG, Yu.G.; PITADE, A.A.; RADUTSKAYA,
P.D.; ZHILKINSKIY, S.I.; KAZAK, V.M.; KACHAN, V.G.; POLOVKO, N.I.,
red.; LADIYEVA, V.D., red.; ZHUKOV, G.V., red.; YEPATKO, Yu.M.,
red.; SLENZAK, O.I., red. izd-va; KULICHENKO, V.G., red.;
RAKHLINA, N.P., tekhn. red.; MATVEYCHUK, A.A., tekhn. red.

[Geology of the Krivoy Rog iron ore deposits] Geologiia Krivo-
rozhskikh zhelezorudnykh mestorozhdenii. Kiev, Izd-vo Akad. nauk
USSR. Vol.1.[General problems of the geology of the Krivoy Rog
Basin. Geology and iron ores of the "Ingulets," Rakhmanovskiy,
and Il'ich ore deposits] Obshchie voprosy geologii Krivbassa.
Geologicheskoe stroenie i zheleznye rudy mestorozhdenii rudnikov
"Ingulets," Rakhmarovskogo i im. Il'icha. 1962. 479 p. Vol.2.[Ge-
ology and iron ores of the Dzerzhinskiy, Kirov, Liebknecht, October
Revolution, "Bol'shevik," Frunze, 22d Parts'ezd, Red Guard, and
Lenin deposits]Geologicheskoe stroenie i zheleznye rudy mestorozhdenii
im. Derzhinskogo, im.Kirova, im.K.Linkenkhta, im.XX parts"ezda, im.
Krasnoi Gvardii i im.Lenina. 1962. 564 p. (MIRA 16:5)
(Krivoy Rog Basin—Iron ores)

AYZENBERG, D.Ye.; BELEVTSEV, Ya.N.; BORDUNOV, I.N.; [illegible]ENKO, S.T.; BULKIN, G.A.; GORLITSKIY, B.A.; DOVGAL', M.N.; ZAGORUYKO, L.G.; KAZAKOV, L.R.; KALYAYEV, G.I.; KARASIK, M.A.; KACHAN, V.G.; KISELEV, A.S.; LAGUTIN, P.K.; LAZARENKO, Ye.K.; LAZARENKO, E.A.; LAPITSKIY, E.M.; LAPCHIK, F.Ye.; LAS'KOV, V.A.; LEVENSHTEYN, M.L.; MALAKHOVSKIY, V.F.; MITKEYEV, M.V.; PRUSS, A.K.; SKARZHINSKIY, V.I.; SKURIDIN, S.A.; SOLOV'YEV, F.I.; STRYGIN, A.I.; SUSHCHUK, Ye.G.; TEPLITSKAYA, N.V.; FEDYUSHIN, S.Ye.; FOMENKO, V.Yu.; SHKOLA, T.N.; SHTERNOV, A.G.; YAROSHCHUK, M.A.; ZAVIRYUKHINA, V.N., red.

[Problems of metallogeny in the Ukraine] Problemy metallogenii Ukrainy. Kiev, Naukova dumka, 1964. 254 p. (MIRA 18:1)

1. Akademiya nauk URSR, Kiev. Instytut geologichnykh nauk.

STEPANOV, F.N.; ALDANOVA, N.A.; YURCHENKO, A.G.; DOVGAN', ~~N.L.~~

Azulene. Metod.poluch.khim.reak.i prepar. no.4/5:86-9[illegible]62 (MIRA 17:4)

1. Kiyevskiy imeni Lenina politekhnicheskiy institut.

DOVGAN, N.YA., ROZGONI, I.I., VRYDNYK, F.I. LAGODYUK, P.Z., GZHITSKY, S.Z., SKOROKHOD, V.I. (USSR)

"The conditions of Maintaining the Chemical Medium in the Rumen in Ruminants."

Report presented to the 5th Int'l. Biochemistry Congress, Moscow, 10-16 Aug 1961.

GZHITSKIY, S.Z. [Hzhyts'kyi, S.Z.]; DOVGAN', N.Ya. [Dovhan', N.IA.];
ROZGONI, I.I. [Rozhoni, I.I.]; SKOROKHOD, V.I. [Skorokhid, V.I.]

Effect of urea and sodium sulfate on fermentation processes in the rumen of the cow. Ukr. biokhim. zhur. 33 no.1:101-106 '61.
(MIRA 14:3)

1. Research Institute of Agriculture and Animal Husbandry of the Western Regions of the Ukrainian S.S.R.
(UREA) (SODIUM SULFATE)
(STOMACH—MICROBIOLOGY) (CATTLE—PHYSIOLOGY)

GEVORK'YAN, V.Kh. [Hevork'ian, V.Kh.]; DOVGAN', R.N. [Dovhan', R.M.]

Tectonic conditions governing the distribution of spits on the northern coast of the Sea of Azov. Dop. AN URSR no.1:92-95 '64. (MIRA 17:4)

1. Institut geologicheskikh nauk AN UkrSSR. Predstavleno akademikom AN UkrSSR V.G.Bondarchukom [Bondarchuk, V.H.].

DOVGAN, Z. V.

"The Nervous Mechanism of Stimulation of the Gastric Glands." Cand Med Sci, L'vov, 1953. (RZhBiol, No 8, Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)

SO: SUM No. 556, 24 Jun 55

GRECHISHKINA, A.P., kand.med.nauk; DOVGAN', Z.V., dotsent (Chernovitsy)

Effect of sympathectomy and of ganglion-blocking agents on estrus reactions of castrated rats. Probl.endok. i gorm. 5 no.4:42-45 Jl-Ag '59. (MIRA 13:2)

1. Iz kafedry normal'noy fiziologii (zaveduyushchiy - prof. Ya.D. Kirshenblat) Chernovitskogo meditsinskogo instituta (direktor - dotsent M.M. Kovalev).

(SYMPATHECTOMY eff.)
(AUTONOMIC DRUGS pharmacol.)
(ESTRUS physiol.)
(CASTRATION eff.)

KIRSHENBLAT, Ya.D.; GRECHISHKINA, A.P. [Hrechyshkina, A.P.]; DOVGAN', Z.V.
SEMEN, N.P.

Inhibiting neural influences on the function of ovaries. Fiziol. zhur. [Ukr.] 7 no.1:54-60 Ja-F '61. (MIRA 14:1)

1. Department of Normal Physiology of the Chernovtsy Medical Institute.
(OVARIES) (NERVOUS SYSTEM, AUTONOMIC)

DOVGANENKO, V.

[redacted]

What is retarding the development of radio amateur activities in Nikolayev? Radio no.9:11 S '56. (MLRA 9:11)

1. Predsedatel' Soveta Nikolayevskogo radiokluba.
(Nikolayev--Amateur radio stations)

DOVGANOVSKIY, N. P.

"Application of a Numerical Method of Analysis to the Calculation of Electrical Circuits With Variable Parameters." Cand Tech Sci, Taganrog Radio Engineering Inst, Min Higher Education USSR, Taganrog, 1954. (KL No 4, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

DOVGANOVSKIY, N.P., kand.tekhn.nauk

Using the chain method in designing microphone circuits with condenser microphones. Trudy RIIZHT no.26:36-42 '58. (MIRA 12:3)
(Microphone)